WHAT IS CLAIMED IS:

1. An illumination system, comprising:

a first light source;

a second light source configured to emit light when the first light source is not emitting light;

a polarizing element that accepts light from the first and second light sources and emits, along a light path, light from the first light source with a first polarization orientation, and wherein the polarizing element emits, along the light path, light from the second light source with a second polarization orientation;

a homogenizing element that receives and homogenizes polarized light from the polarizing element; and

a polarization rotator that receives light from the homogenizing element and selectively rotates one of the first and second polarization orientations to ensure light emitted therefrom maintains a constant polarization orientation.

2. The illumination system of claim 1, wherein the first light source is positioned such that light emitted therefrom is collinear to the light path.

3. The illumination system of claim 2, wherein the second light source is positioned such that light emitted therefrom enters the polarizing element in a direction orthogonal to the light path.

4. The illumination system of claim 1, wherein the polarizing element is a polarization beam splitter having first and second faces, and wherein light from the first light source enters the first face and light from the second light source enters the second face.

5. The illumination system of claim 1, wherein the homogenizing element is a light pipe positioned to substantially preserve the first and second polarization orientations.

6. The illumination system of claim 5, wherein the light pipe has a first set of interior surfaces and a second set of interior surfaces, and wherein the light pipe is positioned such that the first set of interior surfaces are orthogonal to the first polarization orientation and the second set of interior surfaces are orthogonal to the second polarization orientation.

7. The illumination system of claim 1, further comprising:

a sensor operationally connected to the first light source, the sensor detecting an operational state of the first light source;

wherein the illumination system is configured to activate the second light source when the sensor detects a failure of the first light source.

8. A failsafe illumination system that provides light having a predetermined polarization orientation, comprising:

a first light source configured to emit light;

a second light source configured to emit light when the first light source is in a failure mode;

a polarizing element, positioned to impart a first polarization orientation to light from the first light source and a second polarization orientation to light from the second light source, the second polarization orientation being substantially orthogonal to the first polarization orientation;

a polarization rotator positioned to accept light from the polarizing element, the polarization rotator configured to rotate one of the first and second polarization orientations such that light exiting therefrom maintains the predetermined polarization orientation; and

a polarization maintaining element positioned between the polarizing element and the polarization rotator and configured to substantially maintain the first polarization orientation and the second polarization orientation between the polarizing element and the polarization rotator.

9. The failsafe illumination system of claim 8, further comprising a sensor associated with the first light source and configured to detect a failure of the first light source.

10. The failsafe illumination system of claim 9, further comprising:

a controller that, in a normal mode, controls the first light source to be activated, the second light source to be deactivated, and the polarization rotator to be in a first rotation state.

11. The failsafe illumination system of claim 10, wherein the controller, in response to a signal from the sensor indicating a failure of the first light source, controls the second light source to be activated and the polarization rotator to be in a second rotation state.

12. The failsafe illumination system of claim 8, wherein the polarization maintaining element is a light pipe having a first end adjacent the polarizing element and a second end adjacent the polarization rotator, the light pipe further having a first pair of internal surfaces orthogonal to the first polarization orientation and a second pair of internal surfaces orthogonal to the second polarization orientation.

13. The failsafe illumination system of claim 12, wherein the light pipe has a square cross-section.

14. The failsafe illumination system of claim 12, wherein the light pipe has a rectangular cross-section.

15. A method of providing a failsafe illumination system that provides light having a predetermined polarization orientation, the method comprising:

actuating a first light source to emit light;

polarizing the light from the first light source to have a first polarization orientation;

actuating a second light source to emit light when the first light source is not emitting light;

polarizing the light from the second light source to have a second polarization orientation;

alternately directing, through a light pipe, the light having the first polarization orientation and the light having the second polarization orientation;

maintaining the first polarization orientation while the light from the first light source is in the light pipe;

maintaining the second polarization orientation while the light from the second light source is in the light pipe, and

rotating one of the first polarization orientation and the second polarization orientation after the light exits the light pipe.

16. The method of claim 15, wherein the rotating step comprises rotating the second polarization orientation to the first polarization orientation when the first light source is not emitting light, and wherein the first polarization orientation is the predetermined polarization orientation.

17. The method of claim 15, wherein the rotating step comprises rotating the first polarization orientation to the second polarization orientation when the first light source is emitting light, and wherein the second polarization orientation is the predetermined polarization orientation.

18. The method of claim 15, wherein the light pipe has a first set of interior surfaces and a second set of interior surfaces, the method further including positioning the light pipe such that the first set of interior surfaces are orthogonal to the first polarization orientation and the second set of interior surfaces are orthogonal to the second polarization orientation.

19. The method of claim 15, further comprising:

sensing a failure of the first light source; and

activating the second light source when a failure of the first light source is sensed.

20. The method of claim 15, further comprising:

positioning the first light source to emit light along a first light path; and

positioning the second light source to emit light along a second light path, wherein the second light path is non-collinear with the first light path.